

## CLAIMS

1. A high temperature superconductive Josephson junction, wherein two single crystals of a high temperature superconductor are bonded on a substrate in a range of intersecting angles of 0 degree to 90 degrees, a single high temperature superconductive Josephson tunnel junction is formed in a bonded portion, and a plasma frequency of the high temperature superconductive Josephson tunnel junction varies depending on an intersecting angle.

2. The high temperature superconductive Josephson junction as claimed in claim 1, wherein the two single crystals are any one of a whisker, a finely processed single crystal and a thin film, or a combination of two types of them.

3. The high temperature superconductive Josephson junction as claimed in claim 1 or 2, wherein the high temperature superconductor is a bismuth compound and its superconductive phase is any one of 2212 phase, 2201 phase and 2223 phase, or a combination of two or more types of them.